

For Laboratory Use Only

SMALL VOLUMES USED
CONTAINER SIZE RANGE
2 OUNCE - 1 GALLON MAXIMUM

MATERIAL SAFETY DATA SHEET

Section 1 - PRODUCT IDENTIFICATION

MANUFACTURER'S NAME DEARBORN CHEMICAL CO., Subsidiary W. R. Grace & Co.	EMERGENCY PHONE NO. 312/438-8241
ADDRESS 300 Genesee St., Lake Zurich, IL 60047	
CHEMICAL NAME AND SYNONYMS Hardness buffer solution	TRADE NAME OR CODE IDENT. Code 517

Section 2 - INGREDIENTS	CAS No.	%	EXPOSURE CRITERIA
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Ammonium hydroxide	1336-21-6	approx. 50	
Sodium sulfide	1313-82-2	approx. 5	

NFPA Code: 1-0-0

Section 3 - PHYSICAL DATA

BOILING POINT, 760mm Hg	212°F.	MELTING POINT	N/A
SPECIFIC GRAVITY (H ₂ O = 1)	1.0	VAPOR PRESSURE	N/A
VAPOR DENSITY (AIR = 1)	N/A	SOLUBILITY IN H ₂ O, % BY WT.	complete
VOLATILES BY VOLUME	N/A	EVAPORATION RATE, _____ = 1	N/A
APPEARANCE AND ODOR	Light color liquid with sulfur odor	pH	U/K

Section 4 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (and Method Used) None	FLAMMABLE LIMITS in AIR, % by VOLUME LOWER N/A UPPER N/A	AUTO IGNITION TEMPERATURE N/A
EXTINGUISHING MEDIA <input type="checkbox"/> Water Fog <input type="checkbox"/> Foam <input type="checkbox"/> CO ₂ <input type="checkbox"/> Dry Chemical <input type="checkbox"/> Other		
SPECIAL FIRE FIGHTING PROCEDURES None		

UNUSUAL FIRE AND EXPLOSION HAZARD

None

Section 5 - REACTIVITY DATA

STABILITY (Normal Conditions) <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable	CONDITIONS TO AVOID None
INCOMPATIBILITY (Materials to Avoid)	None

HAZARDOUS DECOMPOSITION PRODUCTS

Ammonia and hydrogen sulfide gases

HAZARDOUS POLYMERIZATION <input type="checkbox"/> May Occur <input checked="" type="checkbox"/> Will Not Occur	CONDITIONS TO AVOID None
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(over)

MATERIAL SAFETY DATA SHEET (Continued)**• Section 6 -- HEALTH HAZARD INFORMATION****EXPOSURE LIMIT**

Not established

EFFECTS OF OVEREXPOSURE**INHALATION** May cause nasal irritation. Avoid fumes. Remove from area of vapors.**INGESTION** Irritating or harmful to mucous membrane and tissue. If ingested, drink quantities of milk or water. Induce vomiting by putting finger down throat or use of syrup of ipecac.**SKIN OR EYE CONTACT**Skin: Wash skin with soap and water. Eyes: Flush copiously with water.
Contact physician immediately.**EMERGENCY AND FIRST AID PROCEDURES**

See above

• Section 7 -- SPECIAL PROTECTION INFORMATION**VENTILATION REQUIREMENTS**

Mechanical

RESPIRATORY PROTECTION (Specify Type)

In amounts normally used for test purposes, protection not usually required.

EYE PROTECTION

Safety glasses (goggles when neutralizing)

GLOVES (Specify Type)

None

OTHER PROTECTIVE CLOTHING AND EQUIPMENT (Specify Type)

None

• Section 8 - SPILL OR LEAK PROCEDURES**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED**

Use absorbent paper towel and discard in waste container. Rinse area of spill with water.

WASTE DISPOSAL METHODNeutralize with dilute hydrochloric acid then place liquid in chemical waste container. Destroy bottle. HW-D002**• Section 9 -- SPECIAL PRECAUTIONS****PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE**

Protect container from physical damage. Keep closed when not in use.

OTHER PRECAUTIONS

Store in cool place.

Shipping Name: DOT ORM-A, NOS. Ammonium Hydrosulfide Solution UN 2818 (1 quart only)*

IATA *Ammonium Polysulfide Solution
UN 2818

Prepared By W. M. Morris

Date: 8/82 (10/84 Revised)